REMARKS

Claims 1-13, 15-17, 51, and 213-218 are pending in the application. Claims 51 and 215-218 are allowed. The Examiner has raised an objection to Claims 3-7 and 15-17, but has indicated that Claims 3-7 and 15-17 would be allowable if rewritten in an independent format.

Claims 3, 15, and 16 have been amended from dependent form to independent form.

Further, the specification has been amended to correct a minor error and to update the status of the parent application. Therefore, no new matter has been added.

The specification has been objected to allegedly because of the informality that Applicants' related patent application information to the parent Application Serial Number 10/281,321 should be updated.

The specification has been amended to indicate that Application Serial Number 10/281,321 is now abandoned.

Claims 1-2, 8-13, and 213-214 stand rejected under 35 U.S.C. § 103, as allegedly being unpatentable over U.S. Patent No. 6,251,775 to Armbrust, *et al.* ("Armbrust '775").

Applicants respectfully traverse.

Claim 1 recites *inter alia* a first silicon-diffused metal layer.

Armburst '775 fails to teach or suggest a first silicon-diffused metal layer. Figure 1 of Armburst '775 shows that a silicide layer 13 is formed on the upper portion of conductor 11. col. 4, lines 10-22. Armburst '775 teaches that silicide layer 13 is formed by well-known processes, such as the NH_3 plasma enhanced chemical CVD process and a conventional silicide process.

Such processes of producing the silicide layer 13 demonstrates that the double structure of conductor 11 and the silicide layer 13, as disclosed in Armbrust '775, is an embodiment of copper layer 107 and Cu silicide layer 108, as shown in Figure 1H of the specification. The resistance of a wiring layer is substantially increased, since the resistivity of the silicide layer is higher than the conductor (Cu).

Referring to page 5 of the Office Action, Webster[1] has been cited for the purpose of asserting that a "silicide" and metal as disclosed in Armburst '775 "reads on" the claimed first silicon-diffused metal layer. However, this is the incorrect standard of patentability under 35 U.S.C. § 103. The standard is whether the claimed first silicon-diffused metal layer reads on the silicide disclosed in Armburst '775.

In any event, in an effort to advance the prosecution, Applicants respectfully submit that a person of ordinary skill in the art would not have looked to the cited teachings in Webster, a non-technical dictionary, to understand the term "silicide" as disclosed in Armburst '775. The cited teachings in Webster provide that a silicide would encompass metals that include silicon in an amount that is attributed to impurities. A more practical understanding of the term "silicide" as disclosed in Armburst '775 is provided in the Cu-Si phase diagram of Figure 7 in the specification. If Cu includes 8 atoms percent or more of Si, such a Cu would be a Cu silicide. If Cu includes 8 atoms percent or less of Ci, such a Cu would be a silicon-diffused Cu. In this regard, Applicants respectfully submit that a person of ordinary skill in the art would understand

[1] Applicants note that the rejection is based solely on Armburst '775, and not based on a combination of Armburst '775 and Webster.

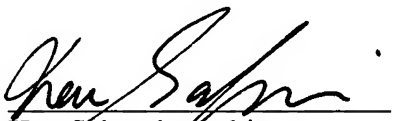
that the term "silicide" as disclosed in Armburst '775 would require material containing silicon in an amount more than a silicon diffused metal layer.

As a result, Armburst '775 is deficient in that it fails to teach or suggest a single structure of a silicon diffused metal layer. The total amount of silicon in the silicon-diffused metal layer is less than the amount of silicon in a silicide. Given the smaller amount of silicon in the silicon-diffused metal layer, the increase of resistance in the wiring can be suppressed.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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